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FILE 'HOME' ENTERED AT 16:01:27 ON 30 JAN 2004

FILE 'AGRICOLA' ENTERED AT 16:02:59 ON 30 JAN 2004

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=> s lignocellulose and transform?
L1 180 LIGNOCELLULOSE AND TRANSFORM?

L2 42 LIGNOCELLULOSE AND TRANSFORM? AND PLANT

```
=> duplicate remove 12
DPLIMATE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
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=> n  
N IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (>).
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```
=> duplicate remove l2
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L2
L3          40 DUPLICATE REMOVE L2 (2 DUPLICATES REMOVED)
```

=> d 13 1-10 ibib ab

L3 ANSWER 1 OF 40 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
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ACCESSION NUMBER: 2003439107 EMBASE

SOURCE: ebk@biology.ou.dk
Aquatic Microbial Ecology, (September 8, 2000) Vol. 22, No.
2, pp. 199-213. print.
ISSN: 0948-3055.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Mar 2002
Last Updated on STN: 20 Mar 2002

AB Carbon and nitrogen mineralization were determined along a transect from a mangrove forest to a seagrass meadow in the Bangrong area, Phuket Island, Thailand. Vertical sediment profiles of carbon oxidation were measured as sulfate reduction rates (SRR) using the 35S technique and by monitoring net TCO₂ and DOC production and Fe(III) reduction using anaerobic sediment incubations ('jar' technique). Nitrogen ***transformations*** were measured simultaneously as net NH₄₊ and DON production. In addition, total benthic metabolism and net nitrogen exchange were determined as fluxes of O₂, TCO₂, DOC, and DIN (NO₃- and NH₄₊) across the sediment-water interface. Rates of carbon and nitrogen ***transformations*** in this vascular- ***plant*** (high C:N)-dominated area were low compared with areas fuelled by detritus of marine origin (low C:N). It appears that the high content of structural biopolymers (e.g. ***lignocelluloses***) hampers microbial activity. Suboxic respiration with Fe(III) as electron acceptor accounted for 70 to 80% of the total carbon oxidation in the rooted mangrove forest sediment, whereas SRR and aerobic respiration were responsible for about 20 and <6%, respectively. The role of SRR decreased to about 10% and aerobic respiration increased to 45-65% in an adjacent bioturbated mudflat, while Fe(III) respiration decreased to 30-40%. At the sand flat and seagrass meadow outside the mangrove forest, Fe(III) respiration only accounted for 15 and apprx0%, respectively, whereas SRR was responsible for 20 to 45% of the total carbon oxidation. However, the most important electron acceptor in the area outside was oxygen (55 to 75%). The shift in dominance of electron acceptors along the transect is primarily related to the presence of roots and infauna, but the sediment composition (e.g. grain size, organic content and iron content) is believed to be an important co-factor. The net production of ammonium in the sediment was not balanced by fluxes of DIN across the sediment-water interface. The missing nitrogen was assigned to a rapid and efficient bacterial ammonium assimilation at the sediment surface as indicated by ammonium turnover times of about 1 d.

=> s lignocellulose and transform? and transgenic and plant
L4 0 LIGNOCELLULOSE AND TRANSFORM? AND TRANSGENIC AND PLANT

=> s lignocellulose and and transgenic and plant
MISSING TERM 'AND AND'

The search profile that was entered contains a logical operator followed immediately by another operator.

=> s lignocellulose and transgenic and plant
L5 1 LIGNOCELLULOSE AND TRANSGENIC AND PLANT

=> d 15 1 ibib ab

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:332354 CAPLUS
DOCUMENT NUMBER: 136:351397

TITLE: ***Transgenic*** ***plants*** expressing ligninase and cellulase for degradation of lignin and cellulose to produce sugars
 INVENTOR(S): Sticklen, Masomeh B.; Dale, Bruce E.; Maqbool, Shahina
 PATENT ASSIGNEE(S): Michigan State University, USA
 SOURCE: PCT Int. Appl., 126 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034926	A2	20020502	WO 2001-US32538	20011018
WO 2002034926	A3	20030925		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002011798	A5	20020506	AU 2002-11798	20011018
US 2002138878	A1	20020926	US 2001-981900	20011018
PRIORITY APPLN. INFO.:			US 2000-242408P P	20001020
			WO 2001-US32538 W	20011018

AB This invention provides a ***transgenic*** ***plant*** expressing ligninase and cellulase genes from microbes operably linked to a DNA encoding a signal peptide which targets the fusion polypeptide produced therefrom to an organelle of the ***plant***, in particular the chloroplasts. When the ***transgenic*** ***plants*** are harvested, the ***plants*** are ground to release the ligninase and cellulase which then degrade the lignin and cellulose of the ***transgenic*** ***plants*** to produce the fermentable sugars. Furthermore, the sugar can be used in fermn. of ethanols.

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=> s ligninase and cellulase and plant
L6          42 LIGNINASE AND CELLULASE AND PLANT

=> s l6 and transform?
L7          2 L6 AND TRANSFORM?
  
```

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=> d 17 1-2 ibib ab

L7      ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:522538 CAPLUS
DOCUMENT NUMBER: 137:83028
TITLE: Slow-release solid-chemical composition and method for
anaerobic bioremediation
INVENTOR(S): Hince, Eric Christian
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
  
```

specific topic.

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FILE 'HOME' ENTERED AT 16:13:45 ON 30 JAN 2004

=> file agricola biosis embasecaplus
'EMBASECAPPLUS' IS NOT A VALID FILE NAME

Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered.

ENTER A FILE NAME OR (IGNORE):embase caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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=> s transit(w)peptide and monocot and dicot
L1 94 TRANSIT(W) PEPTIDE AND MONOCOT AND DICOT

=> duplicate remove l1
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L1
L2 76 DUPLICATE REMOVE L1 (18 DUPLICATES REMOVED)

=> d 12 70-76 ti

L2 ANSWER 70 OF 76 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI SORTING MECHANISM OF PROTEINS INTO PLASTIDS STRUCTURE OF PLASTIDIC
PRECURSORS FOR COPPER ZINC SUPEROXIDE DISMUTASE AND GLUTAMINE SYNTHETASE
AND THE SORTING SIGNAL FOR PLASTIDS.

L2 ANSWER 71 OF 76 AGRICOLA Compiled and distributed by the National
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(2004) on STN DUPLICATE 11
TI Differential expression of individual genes encoding the small subunit of

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003037355	A1	20030220	US 2001-765555	20010119
PRIORITY APPLN. INFO.:			US 2000-177468P	P 20000121
			US 2000-620897	A2 20000721

AB The invention relates to the field of plant and agricultural technol. More specifically, the invention relates to the construction of zinc finger proteins and fusions of said proteins and their use to regulate gene expression and metabolic pathways in plants. Plant genes AP3 and MIPS were examd. for suitable zinc finger binding sites. The novel engineered zinc finger proteins used in the present methods are ZFPm1, ZFPm2, ZFPm3, ZFPm4 and ZFPAp3. These proteins can be used alone or fused to an effector domain. The present methods can be used to modulate gene expression in ***monocot*** or ***dicot*** plant cells.

=> s chloroplast and targeting and vacuole
L4 36 CHLOROPLAST AND TARGETING AND VACUOLE

=> duplicate remove 14
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L4
L5 28 DUPLICATE REMOVE L4 (8 DUPLICATES REMOVED)

=> d 15 1-10 ibib ab

L5 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:133486 CAPLUS
DOCUMENT NUMBER: 138:183112
TITLE: An in vivo assay for proteases by activation of transport of reporter proteins and its use for screening for therapeutic proteinase inhibitors.
INVENTOR(S): Hwang, Inhwan; Kim, Dae Heon; Lee, Yong Jik
PATENT ASSIGNEE(S): Ahram Biosystems Inc., S. Korea
SOURCE: PCT Int. Appl., 213 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003014381	A1	20030220	WO 2002-KR1515	20020808
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,			

=> FIL STNGUIDE			
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	58.48	58.69	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	-6.24	-6.24	

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 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jan 23, 2004 (20040123/UP).

=> file agricola biosis embase caplus			
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	0.48	59.17	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	0.00	-6.24	

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=> s ligninase and cellulase and plant
 L6 42 LIGNINASE AND CELLULASE AND PLANT

=> duplicate remove 16
 DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, CAPLUS'
 KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
 PROCESSING COMPLETED FOR L6
 L7 41 DUPLICATE REMOVE L6 (1 DUPLICATE REMOVED)

=> d 17 1-10 ibib ab

L7 ANSWER 1 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 ACCESSION NUMBER: 2003:439053 BIOSIS
 DOCUMENT NUMBER: PREV200300439053
 TITLE: Optimization of extraction of bulk enzymes from spent
 mushroom compost.
 AUTHOR(S): Singh, Avneesh D.; Abdullah, Noorlidah; Vikineswary, S.

TITLE: ***Transgenic*** ***plants*** expressing ligninase and cellulase for degradation of lignin and cellulose to produce sugars
 INVENTOR(S): Sticklen, Masomeh B.; Dale, Bruce E.; Maqbool, Shahina
 PATENT ASSIGNEE(S): Michigan State University, USA
 SOURCE: PCT Int. Appl., 126 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034926	A2	20020502	WO 2001-US32538	20011018
WO 2002034926	A3	20030925		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002011798	A5	20020506	AU 2002-11798	20011018
US 2002138878	A1	20020926	US 2001-981900	20011018
PRIORITY APPLN. INFO.:			US 2000-242408P P	20001020
			WO 2001-US32538 W	20011018

AB This invention provides a ***transgenic*** ***plant*** expressing ligninase and cellulase genes from microbes operably linked to a DNA encoding a signal peptide which targets the fusion polypeptide produced therefrom to an organelle of the ***plant***, in particular the chloroplasts. When the ***transgenic*** ***plants*** are harvested, the ***plants*** are ground to release the ligninase and cellulase which then degrade the lignin and cellulose of the ***transgenic*** ***plants*** to produce the fermentable sugars. Furthermore, the sugar can be used in fermn. of ethanols.

=> s ligninase and cellulase and plant
 L6 42 LIGNINASE AND CELLULASE AND PLANT

=> s 16 and transform?
 L7 2 L6 AND TRANSFORM?

=> d 17 1-2 ibib ab

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:522538 CAPLUS
 DOCUMENT NUMBER: 137:83028
 TITLE: Slow-release solid-chemical composition and method for anaerobic bioremediation
 INVENTOR(S): Hince, Eric Christian
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 16 pp.
 CODEN: USXXCO